Mirant Potomac River Generating Station
Public Hearing Comments

Delivered by
Paul Ferguson, Chair
Arlington County Board

November 19, 2007

Good evening. My name is Paul Ferguson and I am currently the chair of the Arlington County Board. I have submitted a letter on behalf of the Board containing the following comments about the proposed State Operating Permit for the Mirant Potomac River Generating Station. In addition, William Roper, Director of Arlington's Department of Environmental Services, has also submitted more detailed staff technical comments for DEQ's consideration:

1. Arlington County is located just over a mile north of the Mirant facility. Because prevailing summer winds generally come from the south, our downwind location makes us especially concerned about the impact of pollutants from this facility on the public health of Arlington residents, especially those who live and work in the Crystal City area.

2. Scientific evidence continues to accumulate showing that exposure to very fine particulates, referred to as $PM_{2.5}$, can have life-threatening health impacts. We feel strongly that the State Operating Permit ought to reflect the best available information and should include stringent emission limits for $PM_{2.5}$ based on EPA's latest guidelines.

3. The current air pollution control technology used at this aging facility, electrostatic precipitation, will not reliably remove fine particulates to the levels needed to protect public health and safety.

4. Given this plant's location in the densely populated urban core of the region, the plant needs to install modern baghouse technology, and needs to be equipped with continuous emissions monitors to ensure compliance with all permit conditions. Lives are too precious to rely on antiquated technology and periodic stack tests conducted only when the plant is operating at its best.

5. The continued use of the chemical, Trona, to reduce sulfur dioxide emissions needs to be more fully evaluated. Concerns have been raised about increases in particulate and carbon monoxide emissions and these

issues must be addressed. Furthermore, Trona is known to contain small amounts of silica, a known carcinogen. Before continuing to use this technology, or any alternatives like sodium bicarbonate, it is important to more fully assess the full impacts on public health.

6. Mirant has made several piecemeal physical changes to emission control systems in the past few years, as well as changes in plant operations. It is Arlington's position that these changes may have triggered the New Source Review requirements. DEQ should review this issue to ensure that the plant is protecting public health to the maximum extent.

7. Although the draft State Operating Permit does not directly address the proposal to merge the existing five stacks into two stacks, Arlington County is unequivocally opposed to this proposal. Any proposal that increases the effective height of the stack emissions by increasing temperatures or exhaust velocity must include a comprehensive analysis of regional impacts of such a proposal. Any proposal that potentially increases the dispersion of fine particulates and other pollutants undermines our shared regional goals to achieve compliance with Clean Air Act requirements, particularly for ozone and $PM_{2.5}$.

In closing, I want to thank DEQ and the State Air Pollution Control Board members for providing this opportunity to comment on the State Operating Permit. Arlington County recognizes the many challenges you face in protecting and improving Virginia's air quality. We hope that our comments will assist you in revising the permit to better protect the health of our citizens.

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November 16, 2007

Mr. Terry Darton,
Air Permit Manager
Virginia Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

Dear Mr. Darton:

Arlington County submits the following comments on the draft State Operating Permit (SOP) for the Mirant Potomac River LLC's Potomac River Generating Station, in response to the Virginia Department of Environmental Quality's public notice of October 19, 2007.

After reviewing the draft permit and the "Statement of Legal and Factual Basis" provided by DEQ, we believe there are serious deficiencies that must be addressed before issuing a final permit. Our concerns reflect the fact that the region does not currently meet National Ambient Air Quality Standards (NAAQS) for both ozone and fine particulate matter equal to or less than 2.5 microns in size ($PM_{2.5}$). Arlington County is also located only 1.3 miles downwind of the Potomac River Generating Station, given prevailing wind directions during summer months. This makes us especially concerned about any potential adverse impacts to the residents who live and work in and around the Crystal City area of south Arlington.

The Potomac River Generating Station is one of the largest emission sources in the metropolitan area. The plant is located near the center of the urban core and was constructed in the 1950's. It uses emission control technologies that are no longer considered state-of-the-art and the existing stacks do not meet Good Engineering Practice guidelines for stack height. In light of these facts, we encourage DEQ to modify the permit to address the following deficiencies to ensure that public health and safety are protected to the maximum extent possible.

1. *Proposed permit will cause an exceedance of NAAQS for $PM_{2.5}$*

   Fine particulates are increasingly seen as an important public health concern. It is short-sighted to base the proposed permit emission limits

for $PM_{2.5}$ on EPA's interim PM_{10} modeling techniques. EPA's new $PM_{2.5}$ guidance is currently undergoing public comment and when issued will almost certainly result in a substantial reduction in the Significant Impact Levels identified for $PM_{2.5}$.

DEQ should follow the lead of several other states, including New Jersey and Connecticut, which have already begun establishing $PM_{2.5}$ modeling procedures and emission limits. This is especially important given regional efforts to achieve compliance with the $PM_{2.5}$ standards and recent findings by EPA's Science Advisory Board showing that the ambient $PM_{2.5}$ limit must be even lower than the new annual fine particulate standard to fully protect public health.

2. *Only a baghouse will ensure public protection against $PM_{2.5}$ pollution on a continuous basis*

The Potomac River Generating Plant uses electrostatic precipitators for particulate control. This vintage 1970's technology will not be able to fully protect public health and safety under all operating conditions. The permit should require use of a baghouse to ensure the lowest $PM_{2.5}$ emissions on a continuous basis, as well as to increase removal efficiencies for sulfur dioxide and mercury.

3. *Emissions limits are excessively high, do not fully protect public health, and will seriously worsen air quality and jeopardize public health in Alexandria and surrounding areas*

The proposed emission limits do not reflect recent operational and stack testing experience at the Potomac River Generating Station. As a result, the allowable particulate emissions levels are set almost three times higher than the emission levels actually achieved in 2006. This could allow the plant to substantially increase its emissions in the future, which runs counter to regional efforts to reduce particulate emissions. Proposed limits for opacity, sulfur dioxide (SO_2) and nitrogen oxides (NO_x) are also substantially higher than recent operating experience or reasonable expectations about the performance of modern pollution control equipment. All of these proposed limits need to be reexamined in light of the region's nonattainment status and need to address the serious concerns raised by Alexandria's modeling analyses that show serious localized impacts of the facility.

4. *Variable emission limits are akin to intermittent controls and should not be allowed under this permit*

permit provisions that allow variable use of pollution equipment in response to plant operations violate the Clean Air Act prohibition on intermittent controls. These provisions should be removed from the permit. Enforceable limits should be based on reliable control technologies and realistic plant operating scenarios.

5. *Trona has not been proven to reduce particulate matter emissions and should not be permitted or sanctioned without appropriate NSR analysis, nor should alternative sorbents be approved without adequate justification*

Given the demonstrated increase in opacity since use of Trona was introduced at the facility to control sulfur dioxide emissions, it is important to reflect the likely impact of continued Trona usage in the adopted emission limits for particulates. Use of this technology should also be considered within the context of a New Source Review (NSR) analysis. Furthermore, approval of the use of alternative sorbents like sodium bicarbonate should only occur after prior notification and approval by VDEQ and the State Air Pollution Control Board of a detailed testing plan and public review of the results to evaluate the effects on overall pollutant emissions.

6. *Trona health impacts must be further evaluated*

The Virginia Department of Health should investigate the potential health impact of silica, a known carcinogen, at the 2 percent levels reported by the supplier of the Trona used at the facility.

7. *Continuous emission monitors (CEMS) for particulate matter and carbon monoxide (CO) must be required immediately*

Monitoring data from stack testing shows elevated CO emissions, following implementation of low-NOx burners, Separate Over Fire Air (SOFA), and Trona injection. Since installation of these technologies did not follow New Source Review procedures, it is imperative that DEQ require installation of continuous emission monitors for PM and CO as soon as possible for compliance purposes.

8. *The permit needs to ensure that pollution controls are optimized at all times*

The plant is required to optimize all pollution controls in order to minimize emissions at all times, according to 9 VAC 5-40-20 E. To comply with this provision, the existing hot and cold electrostatic precipitators must achieve 99 percent and 96 percent design removal efficiencies, respectively, until

such time as an improved control technology like a baghouse is implemented. Trona use must also be optimized to achieve no more than 0.30 lb/MMBtu of SO_2 emissions.

9. *Annual emissions must be held to a baseline*

Annual emission limits must not exceed the baseline emissions over the most recent 24 months. In the absence of a New Source Review, as had been originally promised by DEQ before issuance of a permit, the plant should not be granted emission limits that exceed their baseline emissions.

10. *Stack merger requires a pre-construction NSR permit*

If Mirant decides to go through with the stack merger project at some future date, this proposal must go through the New Source Review process. In this case, no dispersion credit should be granted unless accompanied by installation of advanced pollution control equipment. We remain particularly concerned about the potential impacts of the stack merger concept because of the potential for dispersing the pollutants generated by the Potomac River Generating Station over an even larger area, including substantial portions of Arlington County.

11. *Impending federal regulations should be reflected in the permit requirements at this time*

The Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) requirements should be included in the permit since they are federally enforceable and will become effective during the life of the permit. Otherwise, the permit will have to be re-opened under VDEQ regulations to include these requirements. Also, the more stringent of the proposed limits and CAIR/ CAMR, that are protective of NAAQS, should be used as the permit limits. For instance, the proposed SO_2 limit of 3,813 tons per year is more stringent than the CAIR limit and should remain. Similarly, the CAIR NOx limit of 1,734 tons per year should be the limit for this permit when it becomes enforceable in 2009.

Arlington County appreciates this opportunity to comment on the proposed permit for the Potomac River Generating Station. We recognize the many challenges facing the Department of Environmental Quality and the State Air Pollution Control Board in protecting and improving Virginia's air quality. We hope that our comments will assist you in revising the permit to better protect the health of our citizens.

Respectfully yours,

Dr. William Roper
Director, Department of Environmental Services

Cc: Ron Carlee, County Manager
Paul Ferguson, Chairman, Arlington County Board
Richard J. Baier, P.E., Director, Alexandria Dept. of Transportation and Environmental Services
William Skrabak, Environmental Quality Division Chief, Alexandria Dept. of Transportation and Environmental Services

Permitting

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November 14, 2007

Mr. Terry Darton
Air Permit Manager
Virginia Department of Environmental Quality
13901 Crown Court
Woodbridge VA 22193

Re: Potomac River Generating Station Draft State Operating Permit

Dear Mr. Darton:

Arlington County has closely followed the controversy and process related to the Mirant Potomac River Generating Station ("PRGS") and supports the efforts of our neighbors in Alexandria to ensure that the operations of the plant will not result in undue adverse public health and environmental impacts. For this reason, on behalf of the Arlington County Board, I submit these comments related to the proposed State Operating Permit ("SOP") for the PRGS.

The proposed SOP should include emission limits for fine particulate matter. Arlington understands that the proposed SOP is based on the PRGS's current five-stack configuration. In the absence of a comprehensive analysis of the impacts of Mirant's proposed stack merge, Arlington considers this an appropriate approach. It is important, however, that the SOP specify emission limits for all regulated pollutants, including fine particulate matter ("$PM_{2.5}$") which is an issue of utmost concern to the residents of Arlington. The Department of Energy Special Environmental Analysis, dated November 2006, identified premature mortality and increases of morbidity on a regional scale as a result of PRGS's emissions, including $PM_{2.5}$. The evidence compiled by the United States Environmental Protection Agency is overwhelming of the harmful effects on human health of both short- and long-term exposure to $PM_{2.5}$ and, as an adjacent jurisdiction, Arlington is deeply concerned about the migration of $PM_{2.5}$ emissions.

Even a cursory review of emissions data and modeling analyses reveals the need for particulate control technology beyond the existing electro-static precipitators ("ESPs"). Accordingly, the proposed SOP must include a stringent limit for $PM_{2.5}$, established by relevant modeling and satisfied through the installation of new pollution control technology such as baghouses. The SOP should also include a mechanism for verifiable continuous monitoring and testing to ensure compliance with permit limits. Thus, Arlington supports a requirement in the SOP for PM continuous emission monitors ("CEMs"). This approach is consistent with the goals of the Metropolitan Washington Council of Governments to reduce $PM_{2.5}$ emissions throughout the region in a proactive manner. In fact, the Council of Governments Air Quality Committee has committed to reducing $PM_{2.5}$ emissions on a regional scope beyond the minimum amount required.

The effects of the use of trona should be analyzed. Related to the issue of $PM_{2.5}$ emissions is the use and impact of trona at the PRGS. Preliminary reports show that the use of trona potentially increases particulate matter and carbon monoxide ("CO") emissions. In addition, there is a dearth of studies on the health effects of trona as a result of its dispersion in the area, particularly to adjacent or nearby residential areas. In light of the silica content of trona, further analysis is warranted. Arlington submits that it is not in the interest of public health to rely on the use of trona in ever-increasing amounts without first understanding the full impacts on public health of such use and appropriate mitigation.

Physical and operational modifications warrant further review. Arlington is also concerned about the physical changes and changes in operations at the PRGS over the past few years. Mirant has made several plant modifications without adequate review and without obtaining a permit. This includes the installation of low-NO_x burners ("LNB"), SOFA technology and the trona injection system. Each of these projects potentially resulted in emissions increases that the United States Environmental Protection Agency and the Virginia Department of the Environment have not adequately reviewed. In addition to the emission increases due to trona injection discussed above, NO_x control technologies such as LNB and SOFA typically increase CO emissions. Based on available data, Arlington submits that these emissions increases were sufficient to trigger the need for New Source Review ("NSR") analysis.

Arlington opposes the proposed stack merge. Mirant has proceeded to make plant modifications in a piecemeal fashion. The proposed stack merger is another project that Mirant has submitted for consideration in isolation. Without a comprehensive evaluation of all past and future planned changes at the PRGS, an analysis of the stack merger project in isolation would be inadequate. Furthermore, absent a comprehensive analysis of the regional impacts of the PRGS stack merge project, Arlington opposes any reconfiguration of the existing stacks. The goal of the Clean Air Act is furthered by reductions of pollutants through enhanced control technology rather than through a dispersion of pollutants into Arlington and other adjacent jurisdictions. Dispersion of pollutants also defeats the air quality goals of the local jurisdictions impacted by such activity and the entire region. Accordingly, in the event Mirant determines to proceed with the stack merge, Arlington supports the requirement for a pre-construction NSR analysis and permit.

In conclusion, Arlington supports a comprehensive SOP for the PRGS that has stringent emissions limits for all criteria pollutants including $PM_{2.5}$. The proposed SOP is not such a permit. Thank you for this opportunity to comment on the proposed SOP. If you have any questions, please contact William Roper, Director of Arlington County Department of Environmental Services, at 703-228-6579 or wroper@arlingtonva.us.

Sincerely,

Paul Ferguson

Paul Ferguson
Chairman

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GERALD E CONNOLLY
CHAIRMAN

November 15, 2007

Mr. Terry Darton
Air Permit Manager
13901 Crown Ct
Woodbridge, VA 22193

Dear Mr. Darton:

On behalf of Fairfax County, I am pleased to comment on the proposed draft state operating permit for the Potomac River Generating Station (Mirant) recommended by the Virginia Department of Environmental Quality (VDEQ).

Fairfax, as a member of the Metropolitan Washington Air Quality Committee, is committed to the reduction of fine particulate matter (PM2.5) along with other air pollutants and submits that the proposed permit is the appropriate mechanism from which these reductions can be achieved.

While the Mirant plant is not located in Fairfax County, it is our understanding that the plant emits significant levels of pollutants, including PM2.5, that can travel great distances and adversely affect human health. These increased levels of PM2.5 pose a health risk to everyone, but especially the young and the elderly, and it is incumbent upon the County to support stringent emissions limits that will protect the public health and safety of its most vulnerable residents.

In the U.S. Department of Energy's Special Environmental Assessment report, it found acute and widespread adverse health impacts of pollutant emissions, particularly increased incidences of mortality and hospitalization due to both short and long-term exposure to PM2.5. VDEQ must not fail in its responsibility to consider the critical health implications of PM2.5 and it must set stringent PM limits in the permit that do not compromise public health or safety. VDEQ should require Mirant to install state-of-the-art control technologies that will control air pollution rather than disperse it through a stack merger.

Fairfax appreciates the opportunity to provide these comments to VDEQ.

Sincerely,

Gerald E. Connolly

Cc: The Honorable Timothy M. Kaine
General Assembly Members, Fairfax Delegation

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GERALD E. CONNOLLY
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FAX COVER SHEET

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Time:	1:45 pm
Fax:	703 324 3955
Phone:	703 324 2321
No. of Pages (Including Cover):	2

Message:

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Zakk Fields - aide to GFC